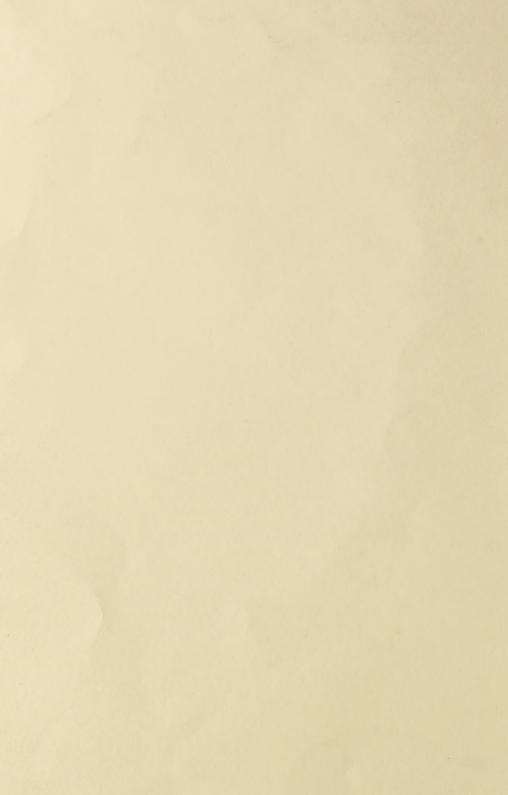
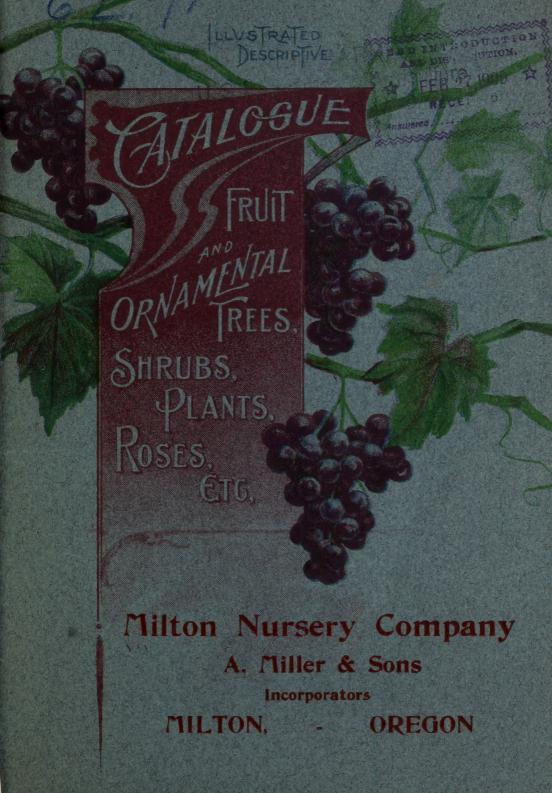
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General Descriptive Catalogue

Fruit, Shade and Ornamental Trees

GROWN AND PROPAGATED BY

Milton Nursery Company

A. MILLER & SONS

INCORPORATORS.

ESTABLISHED IN 1878-INCORPORATED 1908

30 YEARS IN BUSINESS

Oldest and one of the Largest Nurseries in the Northwest

Press of Rochester Lithographing Co., Rochester, N. Y.

INTRODUCTION

TAKE great pleasure in presenting herewith our thirtieth annual catalog, with revised and complete descriptions. The simple and systematic arrangement which has been adopted, combined with a complete index renders the publication very convenient for reference.

OVER THIRTY YEARS AGO, A Miller, the present president of the Milton Nursery Company, started the Milton Nursery in what is known as "The Garden Spot" of the Walla Walla Valley, just in the edge of the beautiful town of Milton, Umatilla County, Oregon, and one-fourth mile east of the depot, on the main line of the O. R. & N. Railroad between Spokane and Pendleton. Also one-fourth mile east of the depot on the Walla Walla Valley Traction Company road. From a small beginning, it grew steadily under his careful experienced management, it being his constant aim to produce stock absolutely true to name and peculiarly adapted to the climate and other conditions of the Northwest. That he was successful in his efforts we believe to be fully proven by the large number of thrifty orchards grown from stock from our nurseries, now bearing fruit in abundance throughout the Western states.

In 1896 S. A. Miller secured an interest in the nursery and assumed the management of the business. At that time more ground was secured and a larger acreage planted to nursery stock, and the business continued to grow. A few years later the names of G. W. and C. B. Miller were added to the firm, and in the Spring of 1908 the business had reached such a great volume that in order to better facilitate its management, the firm was incorporated with a capital stock of \$50,000.00 under the name of Milton Nursery Company. The stock being fully paid up and all retained by the old firm of A. Miller & Sons.

The Company now has ONE HUNDRED AND THIRTY-FIVE ACRES devoted exclusively to the growing of over ONE MILLION fruit, shade, ornamental trees and shrubbery, and having just completed our new warehouse, cellar and office at a cost of several thousand dollars, we can safely claim the distinction of having the oldest and best equipped nurseries in the Northwest. The soil on which we grow our trees is perfectly adapted to the raising of nursery stock and producing a fine system of golden yellow, fibrus roots, as well as unusually healthy and thrifty tops.

We thank our friends and customers for the liberal patronage we have received for more than a quarter of a century, and believing this is only attained by honest and fair dealing with all, we hope in the same manner to retain the trade and confidence already placed in our nursery as well as to increase it.

Knowing that never before have we offered a finer stock to the public, we feel that we need no other guarantee than our record of the past years. It is our aim and intention to supply only the best stock at lowest prices consistent with the quality of the goods offered, and all intending purchasers will find it to their advantage to give us an opportunity to furnish estimates upon their lists. We, therefore, solicit your orders, promising that every endeavor will be made to make each customer satisfied.

PLEASE READ

1.—We begin shipping in the Fall, about the 20th of October, continuing until freezing weather, and usually in the Spring from March 1st to the middle of April.

2.—Orders should be sent in as early as possible, that there may be plenty of

time for shipping long distances when necessary.

3.—Buyers ordering by letter should write out their order plainly. This will prevent mistakes in the hurry of the packing season. Also, write your name, postoffice, State and County as plain as possible.

4.—Give plain and specific directions. When none is given we forward according to our best judgment, but in no case do we assume any responsibility after the

delivery of the stock in good condition to the forwarder.

5.—Those who are not acquainted with the merits of the different varieties will do well to leave the selection to us, stating if wanted for family or market use, and giving the proportion of Summer, Fall and Winter, as we shall send only such as give general satisfaction, and our long experience enables us to select

varieties adapted to the locality.

6.-We take great care to have our trees true to name, cutting all our scions and buds from bearing trees ourselves, and not trusting it to our hired men, but if any should prove untrue we will replace the same or refund the money. It is, however, understood between the purchaser and ourselves that in no case will we be held liable for a greater sum than the original price paid for the trees that

7.—All the trees and plants are carefully labeled and securely packed in the best possible manner, and delivered at the railroad or postoffice, for which no extra

charge is made.

8.—Orders must be accompanied with the cash or satisfactory reference.

9.—Remittances may be made by Bank Draft, Express Checks, Postal Orders or Registered Letters. Please do not send individual checks without adding 15

cents to cover exchange.

10.—Our Customers are requested to notify us immediately if any errors occur in filling their orders, so that we may at once make ample amends, as we desire to conduct our business in all respects satisfactory to those who favor us with their confidence.

HINTS ON PLANTING ETC.

WHAT TO PLANT—Select thrifty young trees in preference to old or very large ones; the roots are more tender and fibrous and bear transplanting better and are far more apt to live. They can also be more easily trimmed and shaped to any desired form, and in the course of a few years will usually outstrip the old ones in growth. The largest and most successful planters almost invariably select oneyear-old trees.

TREATMENT—When the trees are received from the nursery, bury the roots in well pulverized soil until you are ready to plant them. Never expose the roots to sun or wind. If trees are received in a frozen state, place the package unopened in a cellar, away from frost and heat, until thawed out, then unpack. If partly dried from long exposure, bury entirely in the ground, or place in water from 12

to 24 hours.

PLANTING-Make the holes large enough to admit the roots without cramping or bending, and deep enough to bring the tree to its natural depth. The fine surface soil should be used in covering the roots, and this should be carefully worked among them. If the ground is dry it is well to pour in some water when the hole is partially filled. See that the ground is firmly and solidly packed over all parts of the roots, so there will be no opportunity for dry air or frost to enter and destroy roots deprived of the full benefit of their natural protection. Omission to pack the earth solidly is a more frequent cause of failure in planting nursery stock than any other. Fill the holes full enough to be even with the surrounding surface after the fresh earth settles. Large standard trees should be staked and tied so that the wind will not loosen the roots. Be sure to cut the tops back fully one-third soon after planting; more is better.

AFTER CULTURE—Cultivate vegetables among your trees, never grain or In order to make your trees have a good healthy growth you must cultivate them the same as you would corn or potatoes; in fact you cannot cultivate them too much the first three years.

PRUNING-Pruning should be varied according to the condition of the tree and the purpose of the planter. It should be done regularly every Spring before the buds swell. By doing this the removal of large branches will be avoided.

NUMBER OF TREES OR PLANTS ON AN ACRE AT GIVEN DISTANCES APART.

Note to						SQUARE METHOD	EQUILATERA TRIANGLE METHOD
Distance,	1	foot apart	each way,	No. Pla	nts	43,560	50,300
	2	. "	"	66		10,890	12,575
66	2 3	6.6	"	66		4,840	5,899
"	4	66	"	. 66 -		2,722	3,143
66	5	66	66	66		1,742	2,011
66	6	6.6		6.6		1,210	1,397
"	. 7	. 66	66	66		888	1,035
66.	8	6.6	66	66		680	785
	9	66	> 66	66		537	620
,,	10	66	66 .	66		435	502
4.6	12	"	6.6	66		302	348
66	14	66	66	"		222	256
66	15	6.6	"	66		193	222
66	16	"	"	66		170	191
66	18	"	6.6	66		134	154
"	20		66	66		109	125
64	25		66	. 66		69	79
66	30	6.6	66	6.6		48	55
66	35	6.6	"	.66		35	40
- 66	40	ea		66		27	31

Rule, Square Method—Multiply the distance in feet between the rows by the distance the plants are apart in the rows, and the product will be the number of square feet for each plant or hill, which, divided into the number of square feet in an acre (43,560), will give the number of plants or trees to the acre.

Rule, Equilateral Triangle Method—Divide the number required to the acre, "square method," by the decimal .866. The result will be the number of plants required to the acre by this method.

DISTANCES FOR PLANTING.

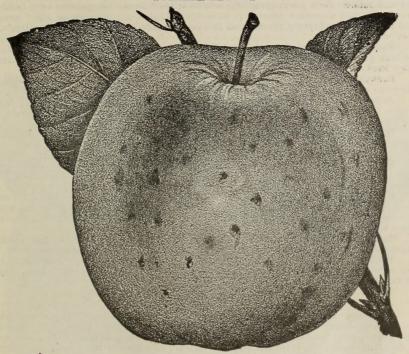
Standard	Apple	 25 t	o 30	feet apart	each way
Stondard	Doore	90 +	0 95	66	
Strong G	rowing Cherries	 20 t	0 25		
Duke and	Morello Cherries	 16 t	0 18		
Standard	Plums and Prunes	 16 t	0 18	"	
Apricots,	Peaches and Nectarines	 16 t	0 18	"	
Grapes .		 7 t	0 10		
Currants	and Gooseberries	 			4 by 6
	ies and Blackberries				
	ries for field culture				
	ries for garden culture .				
	And the state of t				

All communications relative to nursery stock and price will be attended to promptly, and any information or advice that we are able to impart, when desired, will be given freely. No business transacted on Saturday. Address,

A. MILLER & SONS,

fruit Department

SUMMER APPLES



EARLY GOODWIN

Early Goodwin—Originated one and one-half miles north of our nurseries, on the old fruit farm of William Goodwin, whose name we have given this valuable apple, not only in honor of him, but that it also expresses in part the quality of the fruit, "Goodone." The tree makes a beautiful upright, spreading and vigorous growth, perfectly hardy and bears an immense crop of fruit annually. The fruit is large size, smooth, roundish, oblong, beautifully colored with whitish yellow, striped and splashed with bright red and covered with thin bloom. Flesh white, tender, juicy, sub-acid; excellent for cooking and dessert and is unequaled by any other variety of its season, July and August, for its long keeping and shipping qualities. We are pleased to offer to our customers this new apple, feeling assured that it is the best all around shipping Summer variety that has ever been placed on the market.

Yellow Transparent—The earliest apple grown. Ripens two weeks before Early Harvest. Can easily be kept ten days after ripening, making it a desirable market fruit. Flesh fine grained, juicy, rich sub-acid; the tree is perfectly hardy, a good, upright grower, very early and abundant bearer, new and valuable.

Early Harvest—Fruit medium size, skin yellow, flesh very white, tender and juicy; ripens middle of July.

Red June—A medium size apple of good quality, productive and hardy; July

Red Astrachan—Fruit above medium size, nearly covered with deep crimson; rich, juicy and acid; a strong growing tree, perfectly hardy and a good bearer;

Sweet June-Rather large, pale yellow, sweet and juicy; last of August.

FALL APPLES

Autumn Strawberry-Size medium, color streaks of light and dark red; tender, juicy, sub-acid, fine. Tree vigorous and productive. September to October.

Alexander—Of Russian origin; large, deep red flesh; yellowish white; crisp, tender, with pleasant flavor. Very good. October.

Duchess of Oldenburgh-Of Russian origin; large size, roundish, streaked with red and yellow; flesh juicy, sprightly, sub-acid; tree a vigorous grower, very hardy; very early and abundant bearer; it succeeds well in the North where other varieties fail. We confidently recommend it as a valuable market sort, or for domestic use. September.

Fameuse or Snow—A most beautiful apple of medium size, roundish, oblate: whitish ground, striped with deep red, flesh snowy white; juicy and pleasant; tree

very hardy. November to December.

Gravenstein-Large, striped and beautiful; tender, juicy and high flavored;

vigorous and productive. September to October.

Jeffries—Fruit medium size, yellow, shaded and splashed with crimson; flesh white, tender, juicy, with a rich, mild, sub-acid flavor. The best eating grown in its season; very productive. September and October.

Maiden's Blush-Rather large, pale yellow, with a beautiful red cheek; fine

grained, tender, pleasant acid flavor; an excellent market variety; a good and regular bearer; tree extremely hardy; very good. September to October.

Rambo—A very popular Autumn fruit. It is valuable for the table or kitchen, and the tree thrives well, fruit of medium size, with a rich flavor. October to

Red Beitigheimer-A rare German variety, very recently introduced. Fruit very large, skin pale green, mostly covered with purplish crimson; flesh white, firm, sub-acid, with a brisk, pleasant flavor. Tree a fine grower and abundant bearer. September to October.

Twenty Ounce-Very large; yellow, striped with red; quality good, tree hardy, vigorous and a good bearer; popular as a market variety. October to December.

Waxen—Tree very healthy and thrifty; fruit medium size with deep, rich yellow in the sun; flesh crisp, tender, juicy, acid; one of the best drying apples. Last of October.

WINTER APPLES

Arkansaw Black-This apple originated in Benton County, Arkansas. tree is very hardy and thrifty, an early and uniform bearer. Fruit large, smooth and round, very black, dotted with whitish specks. Flesh yellow, very juicy and a delicious flavor. A standard market variety. Specimens have been kept until August.

Baldwin-Large, skin yellow in shade, but nearly covered with red and orange in the sun. Flesh yellowish white with an agreeable mild acid and yet high flavor.

Tree a fine grower and very productive. November to March.

Ben Davis—Large size, striped with bright red; showy, rather coarse quality; productive. Its good keeping qualities make it one of the best shipping varieties.

Bailey's Sweet—Tree hardy, vigorous and productive. Fruit large, roundish, conical, yellowish, mostly shaded and striped with dark red; flesh white, tender, almost melting, with a honeyed sweet flavor. The best late sweet apple. October to November.

Blue Pearmain-Tree hardy. Fruit large, dark red, rich, sub-acid. December

to February.

Delicious—Is all that is claimed for it. Is a thrifty grower; very hardy; has never failed to bear full crop. The apples are large, quite even, and for color about half way between Rome Beauty and Jonathan; it is solid; will mellow about Christmas, and will keep until February. Quality and flavor unsurpassed. Young and annual bearer. Originator, Jesse Hiatt, Iowa.

Grimes' Golden Pippin-Tree hardy and productive. Fruit medium to large, rich golden yellow; flesh crisp, tender, juicy, rich, sub-acid; very good. December

Gano-Form conical, good size and smooth; deep red shaded on sunny side to mahogany; very attractive; flesh pale yellow, fine grained, tender, pleasant, mild, sub-acid; tree healthy, vigorous and hardy; an annual and prolific bearer. It is becoming known as one of our best keeping and shipping apples. February to May.

Jonathan-Medium to large, roundish; skin yellow, nearly covered with dark or lively red; fine grained, very tender and finely flavored; tree very productive. An excellent market variety. December to February.

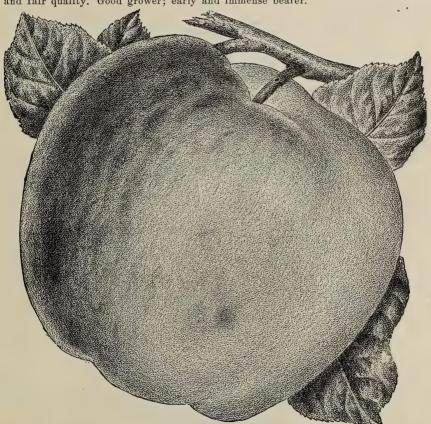
King-(King of Tompkins County)-Very large and showy; color red and striped; flavor like the Baldwin. One of our best Winter apples. Very salable.

November to December.

Lawver—(Delaware Red Winter)—Large, roundish, flat, very heavy and hard; beautiful dark red; mild sub-acid. We have kept them in our cellar for more than a year. Is not profitable in the West.

Mammoth Black Twig—(Paragon)—Very large, bright red, pleasant, sub-acid; tree remarkably vigorous and productive; fruit hangs well on tree; fine late keeper. Missouri Pippin-Large; red cheek, with darker red stripes, very handsome

and fair quality. Good grower; early and immense bearer.



WINTER BANANA. (See page 8 for description).

McIntosh Red—An exceedingly valuable, hardy, Canada sort; medium size, nearly covered with dark red; flesh white, fine, very tender, juicy and refreshing. A good, annual bearer, of fair handsome fruit. Resembles the Fameuse, but larger and more hardy, and fully equal in quality to this standard sort. November to February. A profitable apple in high altitudes. A leader in Montana.

Northern Spy-Fruit large, roundish,, oblong, conical; skin thin, smooth, greenish or pale yellow, with light and dark stripes of purplish red; flesh white, fine grained, tender, slightly sub-acid and delicious flavor; tree a good grower; a long keeper.

Red Cheek Pippin—(Mammoth Pippin)—Large, greenish yellow, with a fine red cheek; juicy, tender and good; trees erect, vigorous and productive. Keeps well till March or April.

Rome Beauty-Origin, Southern Ohio; tree vigorous and productive; bears quite often when but four years old; fruit large, roundish, approaching conic; yellow shaded and striped with a beautiful bright red; flesh yellowish, very tender, juicy, sprightly, sub-acid and very pleasant. We cannot recommend this apple too highly for cooking, eating or market. December to March.

Rhode Island Greening—Trees are hardy, grow very strong, and bears most abundant; fruit large, roundish; skin smooth dark green, becoming yellow when

thoroughly ripe; rich, tender and fine grained: November to December.

Roxbury Russet—Medium to large; greenish or yellow russet; crisp, good, sub-acid flavor; tree vigorous and productive; very popular on account of its long keeping. June.

Spitzenburg, Esopus-Is a handsome, truly delicious apple; fruit striped and splashed with red; flesh yellow, rather firm, with a delicious rich acid flavor.

November to April.

Spokane Beauty—Largest apple known, a perfect prodigy for beauty and large size; color a greenish yellow, shaded and striped with deep red; flesh crisp, juicy, rich, with a delicious high flavor; unsurpassed for cooking and drying; a long keeper, having kept in our cellar until the 1st of August; was awarded the first prize at the Spokane Fruit Fair in 1895 and 1896.

Stayman Winesap—Originated on the grounds of Dr. J. Stayman, Leavenworth, Kansas. Tree much in appearance like Winesap; fruit hangs well on the tree. Fruit medium to large, greenish yellow, striped with dark dull red; flesh yellow,

firm, tender, juicy, rich, mild sub-acid, quality best, season January to May.

Talman Sweet—Medium; pale yellow, slightly tinged with red; firm, rich and very sweet; the most valuable baking apple; vigorous and productive. Novem-

ber to April.

Winesap-Medium; dark red, sub-acid; excellent. Tree a moderate grower and

abundant bearer; an old and favorite market apple. December to May.

White Winter Pearmain—Above medium size; roundish, oblong, conic; pale yellow, with a slight blush; extra high flavor; one of the best. December to March.

Wolf River—An apple peculiarly adapted to the West on account of its extreme hardiness; fruit very large and handsome, being covered with two shades of light and dark red; flesh whitish; juicy, breaking, pleasant sub-acid. A good bearer. November.

Wealthy-Tree very hardy, vigorous and very productive; a beautiful and excellent fruit; skin smooth, white yellow, shaded with deep, rich red; flesh white, fine, sometimes stained with red; tender, juicy, lively sub-acid; very good. December to February.

Wagener-Medium to large; deep red in the sun; flesh firm, sub-acid and excel-

lent; very productive and bears very young. December to April.

Winter Banana—This valuable new variety was originated on the farm of D. N. Flory, Cass County, Indiana. Fruit large, fine grained, a beautiful golden yellow, shaded with bright red, unusually handsome. Flesh of golden yellow, very large and highly perfumed and considered the finest flavored apple grown; an excellent table variety. Tree hardy. An early and prolific bearer. November to May. We have watched this apple since its introduction and from our personal observation, believe it is a profitable variety to grow, especially for the fancy trade, and those who wish to secure this class of business will make no mistake in planting it.

Yellow Newtown Pippin—This stands as high as any apple in our markets, and is one of the best keepers; flesh firm, crisp, juicy and with a fine flavor. January

Yellow Bellflower-Large, oblong; skin yellow, with a beautiful tinge of red on the sunny side; flesh crisp, juicy with a delicious high flavor. October to

January.

York Imperial-Medium to large; whitish, shaded with a beautiful crimson in the sun; firm, crisp, juicy, pleasant, mild sub-acid; tree vigorous and productive; a good market variety. November to February.

CRAB APPLES

Transcendent—A handsome little apple for dessert and preserving. Autumn.

Hyslop—Produced in clusters; dark, rich red; flesh yellowish, sub-acid; good for culinary uses and cider. Good last of September.

Red Siberian—A beautiful little fruit, produced in rich clusters; highly esteemed for preserving. First of September.

Yellow Siberian-Small, beautiful golden yellow. September to October.

Whitney's No. 20—One of the largest Crabs; glossy green, splashed carmine, juicy pleasant; great bearer, excellent for cider. August.

Martha—A new fruit raised from seed of Duchess of Oldenburg. Resembles

the Transcendent, but larger. Very productive.

PEARS. SUMMER

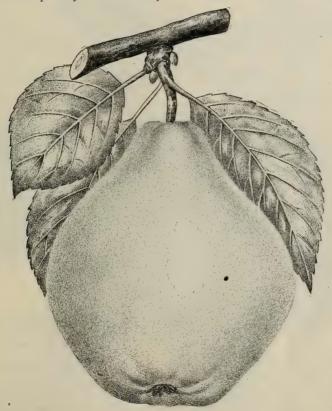
Bartlett-Large, buttery, juicy, high flavored; great bearer. One of the most

popular of all the Summer varieties. August to September.

Clapp's Favorite-Fruit large, skin thin, pale yellow; flesh white, fine grained, juicy, buttery, melting, rich, sweet, vinous; a little perfumed; very good. Ripens two weeks earlier than Bartlett.

Early Madeline—Fruit below medium size; flesh white, juicy and sweet. Rots

at the core. Ripens by the 4th of July.



ROSSNEY.

Rossney—A choice seedling grown near Salt Lake City, Utah. Ripens about two weeks after Bartlett, averages larger, excellent keeper and shipper, uniform size, shape and color, one of the handsomest; creamy skin, with crimson blush; flesh melting, juicy, sweet and tender, of superior flavor. A vigorous grower, hardy both in wood and fruit bud, and very productive. Combines excellent quality with large size, fine form, and superior shipping qualities. Luther Burbank, the most noted horticulturist of the age, says: "The samples of Rossney Pear arrived in due season. The largest size, handsome form, and creamy-yellow skin with arimon blush, given the fruit a tempting appearance and the trader greeny. with crimson blush gives the fruit a tempting appearance; and the tender, creamy

flesh, of just the right texture, with no hard spots and an unusually small core. with its superior flavor, makes it about the best pear so far seen. If the tree is vigorous, healthy and productive, would prefer it to any other, even the standards. Bartlett or Seckel."

AUTUMN

Doyenne du Comice—A French pear, of comparațively recent introduction. Tree moderately vigorous, upright grower. Fruit large, roundish. Skin greenish yellow, becoming fine yellow at maturity, often lightly shaded with crimson and fawn in the sun. Flesh white, fine, melting, a little buttery, juicy, sweet, rich, slightly aromatic. Very good. October to November.

Flemish Beauty—The tree is very luxuriant, hardy and bears early and abundantly; fruit large, pale yellow, becoming reddish-brown at maturity on the sunny side. Flesh yellowish-white, juicy, melting, very saccharine and rich. Last of

Beurre d'Anjou-A fine pear; rather large; flesh yellowish-white, buttery, fine grained, rich, vinous flavor. Tree a good grower and fine bearer. October and November.

Seckel-Small, yellowish brown, red cheek; sweet, juicy, melting. Best. Sep-

tember and October.

Idaho-Introduced from Lewiston, Idaho. Flesh white, exceedingly fine grained, very tender and buttery, with a rich acid flavor. Ripens a month after the Bartlett

Louise Bonne de Jersey-Rather large, greenish-yellow, with a bright red cheek; juicy, buttery and melting; excellent, very productive; a fine grower. September and October.

White Doyenne (Fall Butter)—Medium; pale yellow, with a faint blush; fine

flavor. October to November.

WINTER

Beurre Easter-Tree grows upright and thrifty. Fruit large, flesh white, fine grained, very buttery, melting and juicy, with a sweet and rich flavor. January to May.

Winter Nellis-Tree hardy and thrifty; a very delicious Winter pear of medium size; flesh yellowish-white, fine grained, buttery and very melting, abounding with juice of a rich, aromatic flavor; good to very good. December to February

Vicar of Winkfield-Tree hardy and thrifty; fruit quite large, with pale yellow reddish cheek. Rich and juicy, first quality for cooking and is a valuable

variety. November to January.

Winter Bartlett-Fruit large, closely resembling the Bartlett in shape and appearance; perfectly smooth, flesh tender; juicy and melting; flavor similar to the Winter Nellis, but season a little later, and as good as can be desired. In every way a grand pear.

CHERRIES.

SWEET VARIETIES

Early Purple-An early variety, ripening the last of May in favorable seasons; skin dark red, almost black; fiesh juicy and rich.

Royal Ann—Fruit large; very dark color when ripe, very rich and solid and

an excellent keeper. Middle of July.

Centennial—A new cherry, very much like the Royal Ann, but ripens a few

days later; sweet and good.

Shelton-This new cherry originated in the Walla Walla Valley and is a seedling of the well known Royal Ann, which it very much resembles, but ripens two weeks earlier, which makes it more valuable; tree hardy, upright and vigorous grower, and a continuous and heavy bearer. Fruit very large, pale yellow, with

bright red cheek; flesh sweet, juicy and very rich; the best early cherry grown.

Black Republican—Fruit large, very dark color when ripe; very rich and solid and an excellent keeper. Middle of July.

Lambert—Size very large; form roundish, heart shaped; cavity medium, regular in the reduction of the reduction lar, with gradual slope; stem long, slender; suture of medium depth, wide, extending from cavity to apex, which is of a round russet dot in a broad depression; surface smooth, glossy; color dark purplish-red, with numerous minute, indented russet dots; flesh dark purplish-red with whitish veins, meaty and of firm texture; semi-cling, small for so long a fruit; flavor sweet or very mild sub-acid, aromatic, rich. Quality very good and an excellent shipper.

Governor Wood-Medium size; rich; light yellow with red cheek; juicy and

sweet. One of the best. Last of June.

Black Tartarian—Very large, purplish-black; half tender; flavor mild and pleasant. Tree a remarkable, vigorous, erect and beautiful grower, and an immense bearer. Ripe last of June and beginning of July. One of the most popular early varieties.



BING. Bing—This grand new black cherry was originated by Seth Luelling, of Milwaukee, Oregon. Almost as large again as the Black Republican; flesh very solid, flavor of the highest quality; tree thrifty, upright grower, very hardy and productive; a fine shipping and market variety. First of July.

DUKE AND MORELLOS

May Duke-This is one of the best hardy cherries; medium size, dark red, melting, rich and juicy. First of June.

Late Duke-Fruit large, roundish, rich, dark red, sub-acid. Tree hardy; very valuable. Ripens last of July.

Early Richmond—(Kentish)—Medium size, bright red; flesh melting, juicy and rich acid flavor. Last of June.

English Morello—Medium to large; blackish red, rich, acid, juicy and good.

Olivet-Tree hardy; fruit very large; a shining deep red sort; tender, rich and good. Last of June.

Montmorency-Large, red cherry; larger than Early Richmond and fully ten

days later.

PLUMS.

Abundance-Mr. George W. Thissell of Winters, Cal., says of this fruit: "I have fruited it three years; have found it very prolific; fruit large to very large; color yellowish green, with red cheek in the sun; flesh deep yellow and exceedingly sweet; pit very small; ripens at Winters, June 10th. I consider this one of my best shipping plums."

Peach Plum—Fruit of the largest size and earliest to ripen; regularly formed, roundish; skin red, dotted with a blue bloom; flesh greenish-yellow; becomes tinged with red at maturity; a rich, brisk flavor; the leading market variety. Middle

of July.

Bradshaw-Large, dark red; flesh green, juicy, good; ripens first of September. Burbank—(Japan)—Tree a vigorous grower; early and very heavy bearer; fruit very large; yellowish ground, with red cheek in the sun; flesh yellow, firm and very sweet when fully ripe; extremely small pit, which clings. Middle of June.

Blue Damson-Fruit small, oval; skin dark purple, covered with blue bloom; much used for preserves.

Yellow Egg-Largest size; skin yellow, flesh yellow, very sweet; first-class for canning and a good bearer. September.

Columbia—Tree vigorous and productive; fruit of largest size; skin dark purple, flesh orange, not very juicy, but very rich, sugary and excellent. August.

Coe's Golden Drop—Large and handsome; light yellow, firm, rich and sweet.

September.

Prunus Simoni—(Apricot Plum)—Of Chinese origin; fruit large, flattened; of the size and appearance of a nectarine, and of a brick-red color; flesh shows a fine apricot yellow, with a peculiar aromatic flavor; is becoming popular as a market variety. July.

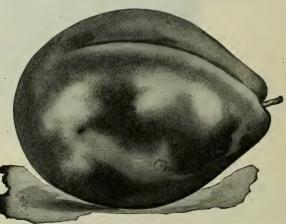
PRUNES.

Hungarian - Largest size, with a beautiful bright red, making it one of the best for marketing; not good for drying. September. Petite d'Agen-(French Prune)-The well-known variety so extensively planted for drying; medium reddish purple, juicy, sugary, rich and sweet; bears immense crops.

Silver Prune—Large size and sweet; a good dryer; ripens rather late for Northern climates. October.

September.

Golden Prune-Large size, rich golden yellow; very sweet. The dried fruit when cooked requires no sugar.



SUGAR PRUNE.

Sugar Prune—A new prune, originated by the well-known Luther Burbank, of Santa Rosa, Cal., from whom we purchased our scions. An extremely early prune, ripens August 1st; cures superbly rich, with a yellow flesh, tender and rich in sugar juice; fruit large, skin very tender, at first of a light purple, tinted with green, changing at maturity to dark purple, covered with a thick, white bloom. Tree a vigorous grower and very productive. (See cut.)

Italian—(Fellenberg)—Medium to large size, oval, dark purple; flesh juicy,

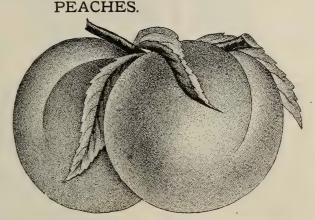
sweet and delicious; a standard drying variety. September.

Tragedy—Medium size; skin dark purple; flesh of yellowish green, very rich and sweet; frees readily from pit. Its early ripening (in July) makes it a valuable shipper.

Arp Beauty - Origin Texas. Of the Elberta type, but hardier in tree, bud and bloom; very prolific. Skin yellow, blushed and mottled bright crimson; flesh yellow, firm, juicy, excellent flavor. Ripens when Alexander is going out. An extra good shipper. Freestone when ripe. We have tested this new peach and find it the best early peach grown.

Alexander — Me-

dium to large; greenish-white, covered



ARP BEAUTY

with a deep rich red; very juicy, clinging to stone. Best early market variety.

Amsden June—The same as above.

Champion-A particularly hardy seedling of Old Mixon, from the West, which is noted for the hardiness of its blossoms, thus insuring a good yield in spite of heavy Spring frosts. It is a large, handsome peach, with a creamy white skin and beautiful red cheek. In flavor it is exquisite, and is a true freestone. Ripens about the middle of July.

Foster-Fruit large, deep orange red, becoming very dark red on the sunny side; flesh yellow, very rich and juicy, with sub-acid flavor; ripens with Early

Crawford; a very handsome freestone peach.

Greensboro—Origin, North Carolina. Ripens with Alexander, but much larger. Round; flesh white, very juicy, of good quality; bright red over yellow, highly

colored in the sun. A promising market variety.

Globe—Large; flesh firm, juicy, yellow; quality good, pleasant, rich, vinous and luscious. A profitable freestone peach ripening about the middle of August.

Wonderful—A freestone. Color a rich golden yellow, overspread with carmine. Ripens after nearly all others have disappeared. Is a wonderful keeper. Tree very prolific. October.

Hale's Early—Medium, nearly round; skin mottled red, dark red cheek. Flesh

white, juicy, melting, high flavored, free from stone. First of August.

Salway-A large, yellow English peach, with deep yellow flesh; very juicy,

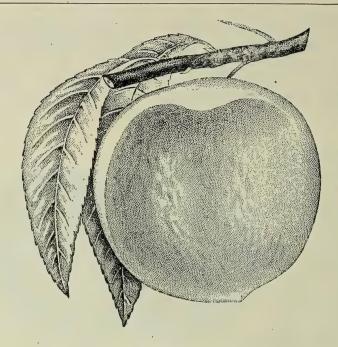
melting and rich. A valuable late market variety.

Early Crawford—A magnificent, large, yellow peach of good quality. Its size, beauty and productiveness makes it one of the most popular varieties. Extensively planted. Freestone.

Late Crawford-A superb, large, yellow, freestone peach; very rich. Last of

Malta or Muir—Very sweet and firm, yellow, with sometimes a faint blush. Large, very free, pit quite small. Most popular drying and canning variety on the coast. August.

Triumph—Earliest yellow flesh peach; ripens a few days later than Alexander, blooms late; sure and abundant bearer; strong vigorous grower; fruit good size; yellow, with red and crimson cheek.



TRIUMPH.

Elberta—Very large; skin golden yellow where exposed to sun, faintly striped with red. Flesh yellow, very fine grain, juicy, rich and sweet. Tree very prolific and presents a handsome appearance. This peach is a perfect freestone. Very successful market variety, commanding a high price. September.

Perfection—This new and valuable peach originated about three miles above Weston, Umatilla County, Oregon, near the timber line of the Blue Mountain Range, which proves its hardiness. The fruit is of the largest size, yellow, with a beautiful blush cheek. The flesh is thick and very fine grained, yellow, with red around the pit, which is nearly as small as a prune seed. Its tough skin, firm flesh and good keeping qualities place it in the lead for a desirable shipping and market variety. Ripens from 10th to 15th of September. We cannot recommend

this new peach too highly to our friends and patrons.

Crosby—Originated near Lowell, Mass. Tree low spreading, willowy habit of growth; fruit buds hardy; so, that the "Crosby" produces full annual crops when all others fail; fruit medium size, rich orange yellow, splashed with carmine on the

sunny side; perfect freestone, pit small, flesh yellow, juicy, tender, sweet and rich. Cox's Cling—Large, yellow, with dark red cheek; flesh yellow, sweet and delicious. Last of September.

Indian Peach—Very large, dark purple clingstone. Flesh dark purple, firm and

rich. September.

Lemon Cling—Large size, lemon color. One of the best market varieties on September. account of its firmness, size and excellent qualities. September.

Health Cling—A most delicious cling. Very large; skin downy, creamy-white with faint blush of red; flesh white, slightly red at the pit; very tender, juicy and sweet; valuable for canning; season, early September.

NECTARINES.

Boston-Very large and handsome; deep yellow, with a bright blush and mottled with red; fiesh yellow to the stone; sweet with a pleasant and peculiar flavor; freestone.

Early Violet-Medium size, skin yellowish green, with a purple cheek. Flesh melting, rich and highly flavored. July.

APRICOTS.

Early Golden—Earliest to ripen; small, pale orange, juicy and sweet. July. Peach Apricot-One of the largest; fruit firm, juicy, with a rich flavor; pro-

ductive. Last of July.

Royal-A fine large French variety; fruit roundish, large, oval, slightly compressed. Skin dull yellow with an orange cheek, very faintly tinged with red. Flesh pale orange, firm and juicy, with a rich, vinous flavor. Ripens the latter part of July.

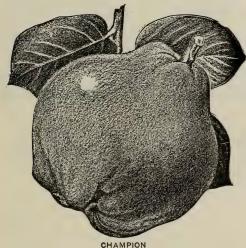
Moorpark—Fruit large, roundish, about two inches and a quarter in diameter. Skin orange in the shade, but deep orange or brownish red in the sun. Flesh quite

firm, bright orange, parting from the stone. Ripens early in August.

Tilton—Originated near Hanford, Kings County, California. Fruit large size, rich apricot color, with flavor of the highest quality. As a result of its fruit buds putting out much later than other varieties, it is said to bear immense crops every year, and is considered the most prolific of all apricots, either for canning or drying.

RUSSIAN VARIETY.

J. L. Budd—Tree a strong grower and profuse bearer; fruit large, white, with red cheek; sweet, juicy, with a sweet kernal, as fine flavored as an almond; the best late variety and a decided acquisition. July.



QUINCES.

Champion-A prolific and constant bearer. Fruit large and of excellent flavor. Bears extremely young. Hardy.

Angers-Later than the above, fruit more acid, but cooks well; tree a thrifty grower and abundant bearer.

MULBERRIES.

Downing Everbearing—Fruit large, black and of best quality. Bears abundantly for three months in the year. Tree hardy.

Russian-A very hardy, rapid grower. Fruit small but produced in abund-

ance. A valuable tree for wind-brakes.

NUT TREES.

ALMONDS.

That the Almond may be grown and fruited successfully, has been demonstated, and some very fine assortments have been grown in the foothills of the Blue Mour ains. It will flourish and fruit where the peach is grown. Some seasons have proved the Almond hardier than the peach. The varities we offer are carefully selected and propagated by budding. They come into bearing as early as the peach.

Dayton—Our attention was called to this Almond four years ago, at Dayton, Washington, where it has been bearing large, annual crops for a number of years. Dayton being in a high altitude and at the foot of the Blue Mountain Range, proves the hardiness of this variety, the origin of which is unknown. Large, sweet, rich kernal; soft shell. Tree a strong, upright grower and very prolific. Gross Tendre-Large, full kernel, thin shell, sweet and rich.

I. X. L.—Large, generally single kernel; hulls easily; soft shell; tree is strong, upright grower.

Nonpareil-Large, full kernel, thin shell; tree of a weeping habit and a strong

grower.

CHESTNUTS

American Sweet-Wherever soil is adapted to its growth; valuable for orna-

ment, timber and nuts.

Spanish or Italian—A handsome, round headed tree, producing abundantly very large nuts that find a ready market at good prices. Not quite as sweet as the American Chestnuts. Tree is hardy with us.

FILBERT .

Kentish Cob-One of the best Filberts to plant; kernel large, full and rich; a heavy bearer.

PECAN

A native nut belonging to the hickory nut family. Tree is of tall growth and bears abundantly; not entirely hardy in the north. Should be planted wherever it will succeed. The shell is very thin, the kernel sweet and delicious.

WALNUTS

American Black-This valuable tree grows and succeeds well on this coast. Valuable for timber and nuts.

Butternut or White Walnut—A fine native tree, producing a large, longish nut, which is prized for its sweet oily nutritous kernel. Tree hardy.

ENGLISH WALNUTS

The culture of the English Walnut in Oregon and Washington, we believe from observation and experience, has passed from the experimental stage to that of success and profit. Locally, we have grown the English Walnut for more than 10 years. The trees began to bear a good quality of nuts at six years of age, and in subsequent years the heaviest crop was born following a very severe winter and the trees have successfully withstood the low temperature of fifteen degrees below zero. The English Walnut is propagated by grafting, budding, or from seed. Experience has proven in the nut districts of California that English Walnuts grown from first generation seed, produce nuts that are superior commercially in quality and quantity to those produced by grafted trees. The trees we are offering are grown from selected first generation seed.

Franquette Walnut-Nut very large and long; kernel full fleshed, sweet and rich; buds out late in the Spring, which enables it to escape the disastrous effects of late frosts. Tree a hardy, thrifty grower and abundant bearer.

Mayett Walnut—This is one of the finest flavored nuts grown; it is quite

large, uniformly so, kernel is full fleshed, sweet and nutty. Tree grows well,

quite hardy and blooms late, which insures a good annual crop.

Placentia Perfection—A new variety originated by J. B. Neff of Anaheim, California. Tree a vigorous grower and very productive; nuts of good form and excellent quality. A leading commercial variety.

GRAPE VINES.

AMERICAN VARIETIES

Agawam-Vine very vigorous, productive; bunch large, moderately compact, shouldered; berry large, roundish, dark red or maroon; flesh almost tender, juicy, vinous, rich peculiar aromatic flavor. Especially adapted for arbor culture. Ripens with the Concord. We consider this the best of American varieties.

Concord-The well known standard variety, succeeds wherever grapes will

v. Black, sweet, good. First of September.

Delaware—Bunches compact; berries rather small, round; skin thin, of a beautiful light red; exceedingly sweet. September.

Isabella—Bunches and berries of medium size; black. A good variety for

arbors. September and October.

Moore's Early-Bunch large; berry large; round, with heavy blue bloom; vine exceedingly hardy. Its earliness makes it desirable for an early market. hardiness particularly adapts it to Canada and northern portions of the United States.



AGAWAM. (See page 16 for description)

Niagara—Occupies the same position among the white varieties as Concord among the black. A profitable market sort. Bunch and berries large, greenish white, changing to pale yellow when fully ripe. Skin thin; quality much like

Worden-This new variety is a seedling of the Concord, which it greatly resembles in appearance and flavor, but the berries are larger. The fruit is said to be better flavored and to ripen several days earlier.

EUROPEAN VARIETIES.

Black Hamburg—A fine, tender grape, producing large, magnificent, compact bunches; berries black, very large and round. A great favorite everywhere, especially for table. Last September.

Black Prince—Very large, oval; bunches medium; flesh firm, with a rich deli-

cious flavor, and highly esteemed as a market variety. September.

Flame Tokay-Bunches very large and moderately compact; berries large, skin thick, pale red, covered with bloom; flesh firm, sweet; an old standard variety, always demands a good price in the markets, and as a table grape, more extensively planted than any other variety. October.

Mission, or California—A well known variety. A strong, sturdy grower, bearing large bunches of black, medium sized berries. Valuable for wine. September.

Muscat of Alexander—Bunches large, long, and loose; berries large, slightly oval, pale amber when ripe, covered with a thin, white bloom; flesh firm, brittle, exceedingly sweet and rich; fine flavored; the variety most extensively planted for raisins. September.

Rose Peru—Bunches very large; berries large, oval, skin thick, brownish black; flesh tender, juicy, rich and sprightly; a fine market variety. September.

Royal Muscadine - This is the earliest grape to ripen. Bunches large and compact; berries medium size, round; skin thin, transparent, greenish yellow; pulp tender, juicy, sweet and richly flavored. Vines are hardy. First of August.

White Sweetwater—Vines hardy; fruit rich and sweet. Very much resembles the Royal Muscadine but the berries are not so compact. First of August.

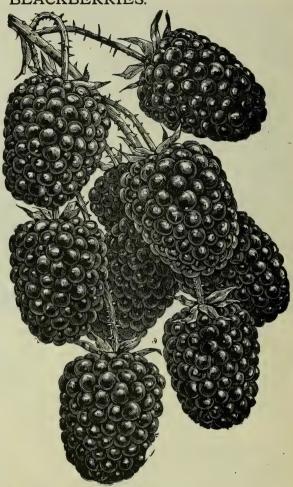
Wilson—A magnificent large, very early be a u tiful berry, of sweet, excellent flavor. Ripens evenly, holds its color well and brings highest market price. Strong grower, exceedingly productive. Not very hardy.

Lawton—Large, black sweet. Very productive. One of the best.

Erie—Fruit large, about the size of Lawton, round and firm; good quality. Its extreme hardiness makes it the best blackberry to plant in cold climates.

Mammoth -Supposed to be a cross between the wild blackberry of California and the Crandalls Early. Grows entirely unlike any other blackberry plant known. It is a rampant grower, trailing on the ground, and under favorable conditions will twenty feet in a season; the canes are large, of deep red color when exposed in the sun; the foliage is large, thick, of a deep green color; enormously productive and exceedingly early, ripening three weeks before other cultivated kinds; fruit enormous, specimens measuring 21/4 to 21/2 inches long; seeds small, core small, soft; in size and flavor

BLACKBERRIES.



MERSEREAU BLACKBERRY.

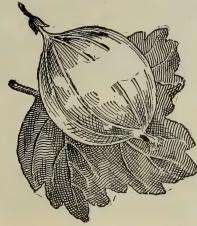
said to surpass all other varieties of blackberries. Vines not very hardy.

Mersereau—This early, mammoth, ironclad blackberry is by far the most valuable variety that has appeared since the advent of the Wilson, over 30 years ago. It originated in northwestern New York, where the mercury falls from 15 to 25 degrees below zero, and where it has stood in open field culture for many years without the slightest protection, never being injured in the least. In quality, it is exceptionally sweet, rich, melting and luscious, being without core; the seedy character of the Snyder and most other sorts is noticeably absent. As a shipper and keeper, it is unsurpassed, remaining firm without "bleeding" in handling.

BLACKBERRY-RASPBERRY HYBRIDS.

Logan—(Raspberry-Blackberry)—Fruit size of large blackberries, same form and shape; color dark, bright red; partakes of the flavors of both blackberry and raspberry; mild, pleasant, vinous, excellent for table and for canning, jelly, jam, etc. Seeds few and small. Bush of trailing habit, vigorous and very productive. This new berry brings the highest price on the markets.

Phenomenal—One of the most valuable of Luther Burbank's productions. It is the result of a cross between the improved California dewberry and the Cuthbert raspberry. Mr. Burbank describes it as larger than the largest berry ever before grown; bright crimson raspberry color; productive as could be desired, and the most delicious of all berries for canning and drying. The berries grow in clusters, each having from five to ten or more, and individual berries often measure three inches around one way by four the other, and weigh one-quarter ounce each. It very much resembles the Logan berry but is claimed to be superior in quality.



OREGON CHAMPION.

GOOSEBERRIES.

Oregon Champion-Large, skin light green. Flesh very sweet, juicy, excellent flavor; very prolific bearer and will not mildew.

Houghton-Medium, skin pale red; very productive, sweet and good.

Red Jacket (Josselyn)—An American seedling of large size; smooth, prolific and hardy; of best quality. Has tested over a wide extent of territory by the side of all the leading varieties, and so far the freest from mildew, both in leaf and fruit, of them all. A wonderful cropper, with bright, clean, healthy foliage.

RASPBERRIES.



BRILLIANT.

high. Cuthbert -Large, deep red, firm, of excellent quality, hard y, very desirable.

while prices are

Brilliant -New, Early Red Rasp-

just as the name

its bright brilliant red to the market, and looks as fresh as when first pick-Ripens its very early

Berries beautiful,

Carries

berry.

large,

fruit

implies.

Loudon—This new variety has come to stay and is the best mid-season berry. Its points of superiority are vigor of growth, large fruit, beautiful rich dark crimson color, good quality and marvelous productiveness and hardiness, enduring Win-

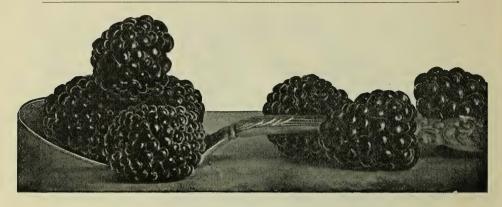
ters without protection and without injury to the very tips. A good shipper.

Gregg—This is decidedly the largest and most prolific Blackcap that we have

ever seen. Fine quality, very productive and hardy.

Golden Queen—A beautiful, large, golden yellow berry; seedling of the Cuthbert and surpassing that variety in size, beauty, quality and adaptability. Canes hardy, of strongest growth, productive. Should be in every home garden, its beauty and high quality placing it at the head for table use.

Cumberland-The largest Black Raspberry known, has been well tested in nearly all sections the past seasons, giving thorough satisfaction. In hardiness and productiveness it is unexcelled by any other variety. In size, the fruit is simply enormous, far surpassing any other sort. The berries run seven-eighths



CUMBERLAND.

and fifteen-sixteenths of an inch in diameter, and are of such handsome appearance that their fruit sold for 10c per quart, when other varieties were selling for 5c to 7c per quart. The quality is very similar and fully equal to Gregg. In spite of its unusual large size the fruit is possessed of great firmness and is thus well adapted for standing long shipments.

DEWBERRY.

Lucretia—One of the low-growing, trailing blackberries. In earliness, size and quality, it equals any of the tall growing sorts. The plant is extremely hardy, healthy and productive. Fruit is of the largest size, soft, sweet, luscious throughout, with no hard core. Very valuable.

CURRANTS.

Cherry-Large, bright red, very good, but not productive.

White Grape—Berries very large, whitish yellow, sweet and good; very pro-

ductive.

Fay's Prolific—A new seedling, originated by Lincoln Fay, of New York, and for size, beauty and productiveness, is the most remarkable currant ever grown. The berry is fully equal to Cherry Currant, while the flavor is much superior. The stems are double the length on an average, and the fruit hangs on well, never dropping as in other currants. We can truly say that it surpasses any other variety ever introduced.

Lee's Prolific—(Black)—A new English variety. The fruit is large and of superior quality; the bush is a vigorous grower and enormously productive, render-

ing it very profitable.

STRAWBERRIES.

Sharpless—Large, irregular, very good quality, with fine flavor; a prolific bearer.

Hood River—(Clark's Seedling)—Originated at Hood River, Oregon, where it is planted to the exclusion of all others for long distance shipments; large, round, and smooth; color a beautiful dark red, and in quality is unsurpassed. Ripens early.

Magoon—This new berry was originated near Portland, Oregon, and promises to be one of the leading berries in the Northwest. A good shipping and canning

variety. Ripens about ten days later than Hood River.

RHUBARB OR PIE PLANT.

This is one of the earliest garden fruits, is excellent for pies, and continues long in use; also very valuable for canning.

Mammoth-Large, early, tender and good.

ASPARAGUS.

Conover's Colossal—This variety is much superior in size and quality to any of the old common varieties, being remarkably tender and fine flavored.

Ornamental Department.



THERE is nothing that adds so much to the appearance and solid comfort of the home, and that will enchance the commercial value of property, either large or small, than the planting of beautiful shade trees, ornamental shrubs and roses. Realizing the growing demand for nursery stock of this nature, we have been giving careful attention to the selection and growing of such shade trees, shrubs, etc., that are best adapted for the various soils and climates of the Northwest, as a result we now have the following most desirable and valuable kinds and varieties to offer.

Black Locust.

A very rapid growing tree, covered in June with sweet-scented, white flowers; valuable as a shade tree and also for its hard wood.

Birch.

EUROPEAN WHITE—(Alba)—A graceful tree with silvery bark and slender branches. A vigorous grower with branches rather pendulous. A beautiful tree for either street or lawn.

Carolina Poplar.

A vigorous, healthy, native tree of rapid growth, pyramidal in form, with large, glossy leaves; valuable for park or street planting. Makes a fine, spreading head if well cut back the first few seasons. Succeeds well everywhere.

Catalpa.

The Catalpa flowers in July when few trees are in bloom. Blossoms are large, very showy and quite fragrant. Leaves large, heart shaped and greenish-yellow. A very effective, tropical looking lawn tree. Hardy.

Elm.

ENGLISH-A sturdy, vigorous, upright growing tree. Desirable for streets

or parks. Hardy.

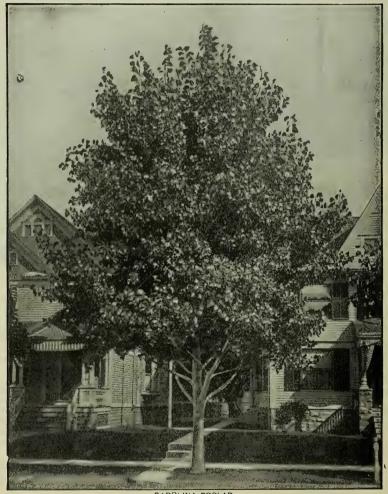
AMERICAN WHITE—The noble spreading, drooping tree of our own woods. One of the grandest and hardiest of park or street trees. CAMPERDOWN—(See weeping trees).

Flowering Thorn.

PAUL'S DOUBLE SCARLET—Flowers large, deep carmine scarlet, very showy and lightly perfumed. The Thorns justly deserve to be classed among the most beautiful flowering trees. They will thrive in dry soil.

DOUBLE WHITE THORN—Has small, double white flowers. Highly orna-

mental on account of both foilage and flowers. Makes a striking contrast when planted with the Double Scarlet.



CAROLINA POPLAR

Flowering Crab.

BECHTEL'S DOUBLE FLOWERING-Makes a medium sized ornamental tree of great beauty; perfectly hardy; succeeds well in all soils not extremely wet. When in bloom in early Spring, this tree presents the appearance of being covered with perfectly double, small, pink roses, of delicious fragrance. The only sweet scented double crab, blooms quite young. Unlike many other trees, it does not bloom until the leaves are fully developed, which adds greatly to its beauty. Has become popular wherever known.

Flowering Almond.

DOUBLE ROSE FLOWERING—A beautiful small shrub, blooming in early May, before the leaves appear, small, double, rose-like flowers, closely set on the branches.

DOUBLE WHITE FLOWERING—A pretty sort of small size, producing beautiful white flowers in May.

Gingko—(Salisburia).

"MAIDEN HAIR TREE"—A remarkable tree from Japan, of medium size; foliage fern-like, yellowish-green, curiously lobed and marked with delicate, hair-like lines.



BECHTEL'S DOUBLE-FLOWERING CRAB. (See description page 22).

Horse Chestnut.

RED FLOWERING—Not so rapid or as fine a grower as the White; foliage of deep green and blossoms later with showy red flowers.

WHITE FLOWERING—A very beautiful well-known tree, with round, dense head, dark green foliage and an abundance of showy flowers in early Spring. Readily transplanted, hardy, and succeeds well on a variety of

Laburnum.

GOLDEN CHAIN—Bears long, pendant racemes of yellow flowers in June; showy and beautiful. Should be in every lawn.

Linden, or Basswood.

AMERICAN-A native tree of value for ornamental purposes. It has large, dark green foliage and very fragrant white flowers in July. It makes a large tree and rapid growth in good soil.

Mountain Ash.

EUROPEAN-A fine, hardy shade and ornamental tree; head dense and regular; covered from July till mid-Winter with large clusters of bright red

Maples.

ASH LEAVED, OR BOX ELDER-A rapid growing variety with spreading head. Succeeds well in dry soil, where other varieties do not thrive. Too well known to need further description.



MAPLE SILVER VARIEGATED ARGENTA.

SILVER VARIEGATED — (Argenta) — This we consider one of the most attractive small ornamental trees grown; so much of the leaf is variegated, that at a short distance it has the appearance of the whole leaf being a silver white. The tree is as hardy as the ash leaved and a specimen should be in every lawn.

GOLDEN VARIEGATED-(A Aurea)-Foliage golden yellow; tree very hardy

and attractive.

SILVER OR SOFT MAPLE—This rapid growing tree is being largely planted in many places. It is a clean tree of great beauty, and hardy. One of the best for streets, parks and lawns.

NORWAY—A native of Europe. Its large, compact habit, broad, deep green shining foliage and its vigorous growth, renders it a very desirable tree.

SUGAR, OR ROCK-The well-known native variety from which the maple

sugar is taken. It is also very desirable as a shade tree.

SYCAMORE-A handsome, broad spreading tree, with large, thick, dark

green leaves. It is a rapid grower and hardy.

SCHWEDLERII—(Schwedler's Norway Maple)—A beautiful variety, with the young shoots and leaves of a bright purplish or crimson color, which changes to purplish green in the older leaves. One of the most valuable trees.

TULIP TREE, OR WHITEWOOD-(Liriodendron)-A magnificient native tree of rapid growth; broad, glossy and fiddle shaped leaves. It is valued for its clean, smooth bark and handsome green foliage. The flowers appear in the first week in June. They are large, greenish yellow, blotched orange, and have the shape of a tulip. It makes a very desirable tree for shade or street planting, thriving in low as well as high ground. Plant only in Spring and prune very closely. Allied to the Magnolia, and like them, difficult to transplant unless of small size.

WEEPING TREES.

Cut-Leaved Weeping Birch.

Beyond question one of the most popular and elegant of all weeping or pendulous trees. Its tall, slender, yet vigorous growth, graceful drooping habit, silvery white bark and delicate cut foliage, present a combination of attractive characteristics rarely met with in a single tree. It is easily transplanted and thrives well in any soil and climate.

Camperdown Weeping Elm.

A vigorous grower, having a uniform weeping habit, overlapping very regularly and forming a roof-like head. The leaves are large, dark green and glossy and cover the tree with a luxuriant mass of verdure.

Wisconsin Weeping Willow.

A beautiful tree with straggling, weeping branches. Makes a fine tree for the lawn or background.



CAMPERDOWN ELM.

HARDY FLOWERING SHRUBS.



AZALEA MOLLIS.

Azalea Mollis.

Among the rarest and choicest of all garden flowers. Great flaming masses of bloom are produced by these new hardy Azaleas, making a show, the glory of which one cannot describe. Suffice it to say that the blossoms are often larger than the hot-house Azaleas, and more brilliant and fiery in colors, scarlet, red, orange, yellow, pink, etc., often flamed and variegated in a lovely manner. Perfectly hardy anywhere in the United States and the most brilliant flowering shrub known. We only send out plants that are well set with bloom buds, and will blossom the first year.

Althea, or Rose of Sharon.

A showy and beautiful flowering shrub. The flowers are large size, very double and full of brilliant colors, beginning to bloom the same year it is transplanted and continues to bloom every year from mid-Summer until frost. We have the following three selected varieties to offer: DOUBLE ROSE.

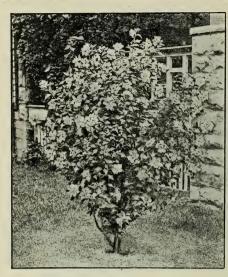
DOUBLE VARIEGATED, pink and white. VARIEGATED FOLIAGE, purple flowers.

Barberry—(Purple-leaved).

Foliage and fruit of a violet purple color; very striking; fine for single specimens in the lawn; also a desirable ornamental hedge plant Calycanthus — (Sweet-Scented Shrub).

Calycanthus — (Sweet-Scented Shrub).

Flowers purple, very double and deliciously fragrant; remains in bloom for a long time; very desirable.



ALTHEA.

Deutzias—(Crenata).

Flowers double white, tinged with pink; blooms in June. One of the fine hardy shrubs.

CANDIDISSIMA-A very valuable variety of strong, hardy growth, producing its pure white double flowers in abundance.

Forsythia-(Golden Bell).

- VIRIDISSIMA—Foliage deep. shining green; flowers bright yellow. A fine hardy shrub and one of the earliest to bloom in the Spring.

FORTUNEI-Similar to the above in flowers, but of more upright growth, with foliage a darker green.

Hydrangea—(Paniculata Grandiflora).

Generally considered the most valuable and ornamental shrub in existence. Bushy and robust, every branch tipped in mid-Summer with an immense close panicle of flat, snow white flowers of gigantic size. The trusses of bloom are eight to ten inches long and are nearly as thick through. Begins blooming in July and lasts until November, flowers turning pinkish toward the last. No other shrub makes such a show on the lawn or is so universally admired. Hardy in any country, and always blooms finely the first Summer.

Japan Flowering Quince.

Bright scarlet crimson flowers in great profusion in early Spring, and in the Fall the bush hangs full of small golden quinces. Perfectly hardy anywhere.

Lilac.

PURPLE-The common purple

species and one of the best.
WHITE—Flowers pure white;
very fragrant and beautiful.

PERSIAN - Of more slender growth and finer foliage than common lilac. Flowers purple, in immense sized spikes.

(Budded Varieties.)
ALPHONSO LAVALLEE—

Double. Blue shaded violet.

BELLE DE NANCY—Double.

Very large; color satiny rose,
white toward center.

LUDWIG SPAETH—Flowers

large, single, dark, purplish red; trusses very long. MADAM ABEL CHATENAY—

Large truss; flowers double

white; very fine. PRESIDENT GREVY—A grand Flowers perfectly double, a beautiful blue. Blos-



SPIREA VAN HOUTTEI. soms measure three-fourths inch in diameter; truss the largest of all, frequently measuring 10 inches long. One of the finest.



HYDRANGEA. (See description page 26)

Spireas.

ANTHONY WATERER-A new crimson-flowered variety which is, in our estimation, one of the best dwarf flowering plants. It makes a low, compact bush two to three feet high and is covered from Spring until late in the Fall with large heads of deep crimson flowers. Perfectly hardy.

VAN HOUTTE—It is a beautiful ornament for the lawn at any season, but when in bloom it is a complete fountain of white flowers, the foliage hardly showing. Perfectly hardy.

PRUNIFOLIA—Very beautiful; its flowers are double and like white daisies. From Japan. Puts forth its white blossoms in May.

Snow Ball—(Viburnum Sterilis).

A well-known shrub; attains a height of 8 to 10 feet; produces its snow white

flowers in large balls in May.

HIGH BUSH CRANBERRY—(Viburnum Opulus)—Handsome and dense foliage; flowers white in drooping flat cymes, followed by brilliant scarlet fruit in showy, pendulous bunches that remain on the plant all Winter.

Upright, or Bush Honeysuckle.

RED TARTARIAN-Beautiful pink and rose colored blossoms in June, followed with bright red berries all during the season. Hardy. WHITE TARTARIAN—Covered with white blossoms in May and June

and is also covered with berries until Fall. Hardy.

Weigelas—(Diervilla).

CANDIDA-A vigorous, erect grower; flowers pure white, borne all through the Summer months.

FLORIBUNDA—Flowers of good size, delicately blushed rosy pink; blooms in June and July.



RHODODENDRON

Rhododendron, or Rosebay.

CATAWBIENSE-The Rhododendron, wherever known, is universally acknowledged to be most showy, magnificient, hardy evergreen shrub that grows. It will thrive in any good soil without any special preparation, and in the full blaze of the sun, but it is more luxuriant in good, well prepared soil of leaf mold and muck and peat mixed and in partial shade. The broad, thick evergreen foliage, with its glossy richness, would entitle it to a place foremost in the rank of evergreen shrubs, but when in June this mass of luxuriant foliage is almost hidden by the magnificent array of beautiful flowers in clus-

ters, it is simply grand. A protection of leaves and brush during the first Winter will be beneficial. The plants we offer are strong and bushy, well set with flower buds and will flower nicely the first year. The flowers are of rich purple color. Yucca Filamentosa—(Adam's Needle).

A hardy, evergreen plant, with long, narrow leaves that are bright green the whole year. The flowers are creamy, bell-shaped, produced in long spikes, 3 to 4 feet high. Fine, stately lawn plant, easy to make grow, and does well in any climate.

EVERGREEN TREES.

Evergreens are very desirable, but they are rather difficult to transplant. They should be subjected to as little exposure as possible. Set with care and shaded well the first three or four months after transplanting. Arbor Vitae.

AMERICAN—One of the finest evergreens for hedges. It grows rapidly and soon forms the most desirable and ornamental hedge or screen to divide the lawn from other parts of the ground.

GLOBOSA-Forms a dense, low globe; handsome shade

of green.

SIBERIAN-One of the best of the genus of this country; exceedingly hardy, keeping color well in Winter; growth compact and pyramidal; makes an elegant lawn tree.

GEORGE PEABODY-A beautiful variety, the gold marking diffusing itself more deeply in the foliage

than any other.

HOVEY'S GOLDEN-A small tree, globular in form; foliage light green, with a golden tinge, and very

compact. The most desirable sort for lawns.

LAWSON'S—(Lawsonia)—A fine evergreen, native of the Pacific Coast. One of the most graceful and beautiful of evergreens; of fine, compact habit; delicate feathery, vivid green foliage.

IRISH-Very erect and tapering in its growth, forming a column of deep blue foliage; a general favorite.

JAPAN—A dense, bush dwarf, with light green foliage. Extra fine sort. Red Cedar—A well-known American tree, with deep green foliage. Can be trained in any form and makes a fine ornamental tree.

Spruce. NORWAY-A lofty, elegant tree, of perfect, pyramidal habit, remarkably elegant and rich, and as it gets age, has fine, graceful, pendulous branches. It is exceedingly picturesque and beautiful. Very popular and should be largely planted.



IRISH JUNIPER

HARDY ORNAMENTAL CLIMBING VINES.

Clematis.

Clematis plants of the improved sorts are exceedingly hardy and produce beautiful large flowers in great abundance during a long period. They do best in a rich soil, in a sunny situation. The young shoots that spring up after transplanting sometimes die down, but if the root is left in the ground undisturbed, it will, most always, send forth strong shoots early the following Spring, which will bear handsome blossoms the same season.

HENRYΠ—Fine bloomer, flowers large, of a bright, beautiful creamy white, consisting generally of from 6 to 8 sepals; it is not only a vigorous grower

but a remarkably free and continuous bloomer.

MADAM EDWARD ANDRE-This is the nearest approach to a bright red Clematis and has been called the crimson Jackmanii. The plant is a strong, vigorous grower, and very free in bloom.

PANICULATA—(New, Sweet-Scented Japan Clematis)—No introduction of

recent years has met with such ready sale and given such satisfaction wherever planted. It grows and thrives anywhere and is a very rapid grower and profuse bloomer. Flowers are pure white, borne in large clusters, converting the plant into a perfect mass of white. Its extreme hardiness, bright green foliage and delightfully fragrant flowers serve to



A native vine of hardy, rapid growth, with large, luxuriant foliage, which in Autumn takes on the most gorgeous coloring. One of the finest vines for covering walls, verandas, etc. Leaves a little smaller and more

VEITCHII — (Boston Ivy) ivy like in form than the foregoing. The plant requires some protection until it is established.

Trumpet Flower or Bignonia. RADICANS-A hardy rapid growing climber, with large, scarlet, trumpet shaped flowers. Blooms almost continuously throughout the summer season.

GRANDIFLORA-(New) -Large flowered trumpet creeper. A rare and beautiful variety of the Trumpet Vine, which is per-Flowers very fectly hardy. large, salmon colored, center yellow, striped red; fine.

Wistaria. CHINESE PURPLE — (Sinensis) -Most beautiful climber; of rapid growth, producing fine. large clusters of lovely blue in great masses. It is very hardy, and one of the most superb vines ever introduced.



CLEMATIS JACKMANNI

Wistaria.

CHINESE WHITE—(Sinensis Alba)—Flowers borne in long, drooping clusters as in the purple variety; pure white in color, making a striking and elegant contrast.

Honeysuckle.

RED CORAL-A hardy, rapid grower; flowers are red and fragrant.

HALLEANA-A new, hardy variety from Japan, and has proved to be one of the best Honeysuckles grown. Blooms from June to November. It is almost evergreen and one of the most fragrant. White, changing to vellow.

ORNAMENTAL HEDGES.

Nothing could be more beautiful than a neatly trimmed hedge, and they are useful for boundary fences, screens, etc. We give below some of the best varieties for ornamental hedges, screens, wind break or boundaries.

Privet Barberry Box American Arbor vitae Siberian Arbor vitae Norway Spruce.



All described in appropriate places in this catalog. See index for page.



More people appreciate the beauty and value of the Rose than that of any other flower, it is one of the easiest to raise in perfection.

It succeeds best in a deep, rich soil, rather moist, with plenty of fine rotted cow manure and leaf mold, spaded in, every Fall banking up against each plant. a foot or more with old coarse straw manure for protection.

In the Spring this manure should be spread on the surface of the bed and cultivated in; the result will be an abundance of rich, beautiful blossoms.

We offer the following carefully selected varieties, which have proved hardy

with us. We send out one and two-year old strong plants on their own roots.

HYBRID PERPETUAL ROSES.

American Beauty-Color rich, rose crimson, shaded and veined in the most charming manner. Hardy, free bloomer and very desirable.

Anne de Diesbach-Brilliant crimson, sometimes shaded with maroon; long pointed buds and large, finely formed flowers. Extra fine.

Clio-The finest flesh colored hybrid perpetual. The flowers are simply perfection in form, with fine broad petals, and are broad petals, beautiful at all stages of development, from the small bud to the full open color delicate satin blush, with a light shading of rosy pink at the center. Very free blooming and strong, healthy grower.

Dinsmore—A vigorous, healthy rose of branching habit, very popular and highly recommended for garden planting as it is almost always in bloom. Flowers of a rich, bright crimson.

Fisher Holmes-Dark, rich scarlet, elegantly shaded with deep, velvety crimson; beautiful. Extra large, full flowers.



General Jacqueminot - Large, CLIO velvety flowers of the most intense maroon-scarlet, each set in a cluster of rich green leaves. Blooms repeatedly through the Summer and Fall and is the most popular rose grown, without exception.

Margaret Dixon—Of magnificient form; white, with pale flesh center; petals very large, shell shaped, and of great substance; foliage very large, dark

Magna Charta-A general favorite, prized on account of its strong, upright growing and bright, healthy foliage, as well as for its magnificient bloom. The color is a beautiful bright pink, suffused with carmine.

Madam Plantier—This grand variety, when once planted, is as hardy as a hydrangea. Flowers pure white, very large and double. One of the very best white roses.

Marshal P. Wilder-Color bright cherry-carmine; fragrant; of vigorous growth,



PAUL NEYRON.

with fine foliage. One of the freest of the Hybrid Perpetuals to bloom. We can recommend this rose without hesitation.

Mrs. John Laing—New. As a bedding rose this is undoubtedly one of the very best varieties yet introduced, being hardly ever out of bloom all Summer. Color a beautiful shade of delicate pink, of large size and very fragrant. It is also a good forcer from January onward.

Madame Chas. Wood-Beginning to bloom almost as soon as planted, and continues throughout the season. The flowers are extra large, very double and full and quite fragrant. Color a bright, fiery scarlet, passing to a fine rosy crimson, elegantly shaded with maroon. Very showy and hand some and one of the best roses ever introduced for general planting.

Paul Neyron—Immense double flowers, with a shining carmine pink: very

double and fine scented. The largest rose known.

Prince Camille de Rohan—One of the darkest colored roses; very dark velvety crimson, changing to intense maroon. There is no rose in all this collection that attracts more favorable comment than this one. A very prolific bloomer and the blooms are of excellent form and size.

Ulrich Brunner-Brilliant cherry-red, a sport of Paul Neyron. Flowers of fine

form and substance; very vigorous and does not mildew.

TEA AND EVERBLOOMING VARIETIES.

Champion of the World-A free-blooming, hardy rose of great merit; the flowers are large size, color a lovely, clear, deep pink. Is constantly in bloom during the whole season.

Etoile de Lyon-This magnificient Tea Rose is rich, golden-yellow; strong, healthy and vigorous grower. Immense bloomer, bearing flowers and buds early and late. Remarkably hardy with us.

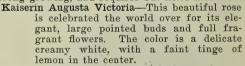
Gruss an Teplitz—(Virginia R. Cox)—This grand rose has proved one of the best and most valuable hardy crimson ever blooming roses for garden planting ever introduced. The color when first opening is dark rich crimson quickly passing to velvety fire red, one of the very brightest colored roses we know. Flowers larger, full, sweet; very showy and handsome; blooms constantly, throwing up fresh buds and flowers the whole growing season. The bush is a healthy vigorous grower, hardy here, and cannot be recommended too highly; every one should have it.

Gen. Robt. E. Lee-Elegant long-pointed buds of a deep orange yellow. The color is so rich and peculiar as to attract atten-

tion whenever seen.

GRUSS AN TEPLITZ. Helen Gould-A remarkably vigorous grower, quickly throwing up strong shoots from the root and producing great masses of splendid roses throughout the season. Flowers are large, perfectly double, and deliciously sweet; color is rich vinous crimson, elegantly shaded and exceedingly beautiful. It is as hardy as La France.

Isabella Sprunt—A canary-yellow, very free bloomer, literally lavishing its large, beautiful buds. Fragrant, strong growing, and requires but little attention.



La France—Perhaps no rose is better known and more highly valued than the La France. Both flowers and buds are of grand size. Color, a silvery-rose, changing to pink. A general favorite and the sweetest of all roses.

Meteor—A reliable ever-bloomer of the deepest glowing crimson; flowers very double and petals slightly recurved; a beautiful open rose, a vigorous grower and a

very fine bloomer.

Maman Cochet—This is one of the most beau-tiful new Tea Roses that has been introduced in years. The growth is vigorous and very rich; healthy foliage and extra large flowers on long, stout stems; very double and simply exquisite when in bud or half blown. The color is a deep rosy pink, the inner side of petals



KAISERIN AUGUSTA VICTORIA.



silvery-rose; makes charming bunches of long-stemmed flowers when cut.

Marie Van Houtte—Plant Marie Van Houtte if you want a rose that will bloom continually and furnish large, well-shapped, sweet scented bloom. It succeeds anywhere in any soil; an exceedingly strong, vigorous grower. Its color is creamy white, with the outer petals outlined bright rose; occasionally the entire flower is suffused with light pink.

Madam Caroline Testout-A grand new rose of the La France type, but with the flowers larger and finer. Color bright, sating pink; very fragrant and free in bloom. One of the handsomest roses, and should

be planted extensively.

Perle des Jardins—This magnificient Yellow Tea Rose still retains its position as one of the finest and most beautiful roses of its color ever produced. Its color is a clear, golden yellow, an indescribably rich and beautiful shade, and entirely distinct from any other variety. The flowers are extra large, of great substance, and full to the center Beautiful both in bud and open flower.

Gontier-An excellent crimson Tea, and one of the best for all purposes. It is a perfect shaped bud on good length of stem, making it desirable for cut flowers and when planted outside, the flowers

MADAM CAROLINE TESTOUT. open up nicely and are of an attractive carmine crimson; should be included in every collection of roses.

Princess Bonnie-One of the finest dark colored Tea roses. Very nearly hardy in most parts of the country. In color, solid crimson. Is already a prime favorite and will be planted even more extensively.

Rainbow—Beautiful buds and flowers of large size; color a beautiful shade of deep pink, distinctly striped. and mottled with brilliant crimson, elegantly shaded and with rich toned amber. Very fragrant and exquisitely beautiful.

Resembles that variety, but the bud is more perfect in contour and the color is of a richer, deeper, more even pink tint; one of the most important of recent acquisitions for forcing or growing in the open air.

Sunset-This grand rose is a favorite wherever known. The color is a rich, golden amber, or old gold, elegantly shaded and buds are extra large, full, finely formed and deliciously perfumed.

bright, apricot yellow, £afrano—A changing to orange fawn. Very much esteemed.

Souvenir de Wooten-A brilliant rose; color magenta-red, shaded violetcrimson; flowers large, full and regular, with thick, leathery petals and delicious Tea scent. leathery



WHITE LA FRANCE.



CRIMSON RAMBLER (See description page 35.)

The Bride—A lovely, hardy Tea rose and very popular. It has beautiful foliage and flowers of large size and most snowy white.

Viscountess Folkstone—A vigorous, free-blooming, Hybrid Tea, of delicate tinted flesh color, almost white, and lustrous as satin; large, delightfully sweet.

White La France—This magnificent new rose is a pure white La France, having just a breath of rose tint blush, decidedly clouding the depths of its broad petals; the buds and flowers are extra large and very full and finely formed; the fragrance is delicious. It is a free, continuous bloomer.

White Maman Cochet—The name describes this new rose. Pure white, grand substance, immense size, exqui sitely fragrant and a free bloomer. It inherits all the good points of the grand variety, Maman Cochet. Buds long and pointed, keeping a long time when cut. We cannot speak too highly of this rose.

CLIMBING ROSES.

Baltimore Belle—This elegant climbing rose is a pale blush, variegated carmine rose and white. It is very double and flowers in beautiful clusters, the whole plant appearing a perfect mass of bloom. It is one of the very best climbing roses.

very best climbing roses.

Crimson Rambler—Perfectly hardy, wonderful free bloomer; rich, flowing crimson. A most vigorous grower, making shoots 8 to 10 feet in a single

season. As many as 30 and 40 flowers are seen in a single cluster.

Dorothy Perkins—Much has been said of this splendid new hardy climber. It has stood a temperature of twenty degrees below zero, without injury; grows ten or fifteen feet in a season. Blooms in immense clusters like the Crimson Rambler, but the blooms are more double and of a beautiful shell pink color passing to deep rose. We consider this the most beautiful climbing rose ever introduced.

Empress of China—A new and very beautiful perpetual blooming climber. It commences blooming the last of May, and if properly cared for, will bloom until late in the Fall. Flowers are beautiful red, but soon turn to

a lovely pink. Perfectly hardy.

Marechal Neil—Still the best climbing, yellow everblooming rose, and is just as popular as ever. The buds and flowers are superb, extra large, very double and sweet-scented; color is deep golden yellow. Every one should have some of this variety.

Queen of the Prairies—Flowers are very large and of a peculiar, globular form.

A bright, rosy red, changing to lighter as the flower opens. Of very

strong rapid growth.

Seven Sisters—Blooms in clusters of seven or more flowers, varying from white

to crimson.

White Rambler—(Thalia)—In habit of growth, foliage, manner of blooming and shape of flowers, this is identical with Crimson Rambler, differing only

in color, which in Thalia is pure, clear white.

Yellow Rambler—This is the only hardy yellow climbing rose. Rapid grower; color a clear, decided yellow, changing to a beautiful cream. Blooms in clusters same as the Crimson Rambler.

MOSS ROSES

Countess de Murinaise—One of the best and most satisfactory pure white Moss . Roses; the buds are elegantly mossed; flowers large, full and fragrant.

Princess Adelaide—Fine, large flowered; very double and fragrant. Color bright rosy pink.

BULBS AND TUBEROUS ROOTED PLANTS.

PAEONIES

Paeonies, (Herbaceous)—Fine, hardy plant rivaling the rose in perfection of bloom and coloring. They make an excellent display when well established in clumps on the lawn, and require very little care, as they will grow and do well in any soil, but the flowers will be larger and the color brighter, if given a rich, deep loam. A selection will give a continuous bloom for two months. We offer the best sorts as follows:

Duke of Wellington-Ivory white, with creamy white center, very large.

Festiva Alba—Pure white. An early and free bloomer.



Paeonies—Continued.

General Gordon—Purplish crimson; strong, free blooming variety; especially suited for cut flowers.

Humei—A pink peony. Very full and double. Very large and showy; one of the latest in bloom. One of the best, latest blooming varieties.

Madam Breon—A beautiful variety with good growing qualities; flowers outside flesh, center lemon, changing to white.

Officinalis Rubra—The old fashioned deep crimson paeony (Piney) early, blooms just before the Snowball.

Paganini—Lively rose, center yellow.

Queen Victoria—A good sized flower; outside pure white, center creamy white, inner petals usually tipped with carmine.

Rosea—Deep bright rose, fragrant, blooms very late.

Rubra Triumphans—Early. A satiny finish, intensely rich crimson; sweetly fragrant.

L'Esperence-Fine pink colored; early, free, very fragrant.

Dorchester-Beautiful soft pink.

INSECT PEST REMEDIES.

As we are often asked the questions, when to spray, what to spray with, how to spray and what to spray for, we give below several remedies for insect pests and diseases, taken from the Spray Bulletin, issued by the Oregon State Board of Horticulture in 1900:

All fruit trees should be sprayed in the Fall, as soon as the leaves have dropped, with sulphur, lime and salt; if no scale are present, full strength Bordeaux mixture will be found sufficient.

SPRAY No. 1-Lime, Sulphur and Salt.

This is a Winter spray, and used for all scale insects, green aphis and clover mite.

For San Jose Scale, Greedy Scale, and Turtle-Back Scale.

Sulphur, lime and salt in the Fall as soon as the leaves have dropped, and again in the Spring before the buds begin to swell.

For Green Aphis.

First application with sulphur lime and salt in the Fall after leaves have dropped, followed in the Spring with Spray No. 14, as they appear on the trees.

For Clover Mite.

Spray with sulphur, lime and salt in the Fall as soon as the leaves have dropped.

Ingredients-Lime (unslacked), 50 pounds; sulphur, 50 pounds; stock salt,

50 pounds. This will make 150 gallons of wash.

Directions-Slack 50 pounds of lime, then add the 50 pounds of sulphur, boil it over a brisk fire for one hour then place all the salt with it in the boiler and boil for 15 minutes more, then add the necessary amount of water to make 150 gallons. This solution should be used at a temperature of at least 100 degrees. Before using, strain it. The utility of this wash depends a great deal upon the strength of the sulphur. It is, therefore, recommended that those who use this wash have a Beaumes scale for acid. When it shows 8 degrees when cold, it is of the proper strength. These scales can be obtained of any druggist at a cost not to exceed 50 cents.

SPRAY No. 7-Bordeaux Mixture.

Used for apple scab, apple canker or deadspot, curl-leaf on the peach,

gummoisis, prune or plum rot, and black rot on the grape.

This is the sovereign remedy against injurious fungus diseases, and its use is general throughout the world; therefore, the combination of bluestone and lime, known as Bordeaux mixture, is indispensable in fruit growing.

For Apple Scab, Pear Scab, and Leaf Blight.

First Application—Just as the buds are swelling, with Bordeaux mixture. Second Application—Just as the fruit buds break open, but before the flowers expand, with Bordeaux mixture.

Third Application-With Bordeaux mixture when the fruit has attained

the size of a hazel nut.

For Apple Canker, or Deadspot.

Cut out diseased spots clean, in the Fall, when leaves have dropped, and wash with Bordeaux mixture; repeat in mid-Summer, if found necessary.

For Curl-Leaf on the Peach.

Prof. Newton B. Pierce says: "Curl-leaf on the peach is caused by a parasitic fungus which is known as Taphrina Deformans. The fungus lives within the tissues of the leaf, in the tender shoots and in the buds. Within the past few months I have learned that lime, sulphur and salt is a satisfactory preventive of this widespread disease. The application of this spray should be made three to five weeks before the buds open in the Spring. The treatment should be very thorough. Or spray with Bordeaux mixture six weeks, and again three weeks later, before the buds begin to swell."

For Prune and Plum Rot.

Spray with Bordeaux mixture as the buds are swelling, and again when the fruit has attained the size of a bean, with modified Bordeaux mixture.

For Gummoisis.

Cut out gum pockets, split the outer bark about one-eighth of an inch from roots to branches on three sides when sap begins to flow, as all gum infected trees are bark-bound, and wash with Bordeaux mixture. Care must be taken in splitting the bark not to cut through to the wood; repeat in mid-Summer if necessary.

For Black Rot on Grape.

Spray with Bordeaux mixture just as the buds are swelling, and again immediately after blooming, with modified Bordeaux mixture.

Bordeaux Mixture for Fungi-How Prepared.

Ingredients-Sulphate of copper, 6 pounds; lime, 4 pounds; water, 45 gallons.

Modified Bordeaux Mixture.

Dissolve bluestone in a wooden vessel, slack the lime in another vessel or can, put both in a barrel of water and mix thoroughly.

SPRAY No. 10-Paris Green Spray-Arsenite of Soda Spray.

These sprays are used for coddling moth larvae, tingis, caterpillars, slugs, and all eating or biting insects.

For Codling Moth.

Paris green or Arsenite of Soda. First spraying, ten days after blossoms

have fallen, and then at intervals, not exceeding three weeks, up to within three weeks of harvesting the apples or pears.

The arsenite of soda is preferably used with Bordeaux mixture, and, as the season advances and foliage matures, increase the arsenite solution gradually from 1½ pints to 1 quart to the 50 gallons of Bordeaux mixture.

For Tingis, Caterpillars and Slugs.

Spray as they hatch and appear on the leaves.

Paris Green Spray-How Prepared.

Proportions for first Applications—Paris Green, 4 ounces; lime, 2 pounds; water 40 gallons.

Proportions for later Applications—Paris Green, 4 ounces; lime 1 pound;

water 50 gallons.

Directions—Slack the lime; make a paste of the Paris green, mix thoroughly and then add water to make the required amount; stir thoroughly while using,

and should be thrown on the leaves and fruit in a fine spray.

Paris green is one of our commercial articles that is shamefully adulterated. Paris green is one of our commercial articles that is snamefully additerated. The foregoing formula is based upon pure Paris green; it is therefore, of much importance that one be able to detect impurities. So far as we know, but two adulterants are used—gypsum and Glauber's salts. The method generally given for the detection of adulteration is to dissolve a small sample of Paris green in ammonia. If there is any gypsum it will not dissolve, but forms a sediment. Glauber's salts cannot be detected by this method, it being equally as soluble as pure Paris green, but if one has a strong microscope at hand, the adulterant green, be easily detected, they being white, while the pure article is green. granules can be easily detected, they being white, while the pure article is green. Ammonia, however, is a good test, gypsum being most commonly used as an adulterant.

The Arsenite of Soda Spray.

Ingredients-Commercial white arsenic, 1 pound; carbonate of soda, 2 pounds; water, 2 gallons. Use 1½ pints to 50 gallons of Bordeaux mixture.

Directions—Dissolve 1 pound of commercial white arsenic and 2 pounds of

carbonate of soda in 2 gallons of water; Use 21/2 pints to 50 gallons of Bordeaux mixture. The easiest way to make the solution is to put both the white arsenic and soda in a gallon of boiling water and keep boiling about fifteen minutes, or until clear liquid is formed, then dilute two gallons; 1½ pints of this solution should be added to each barrel of full strength Bordeaux mixture for earlier spraying, and modified Bordeaux mixture for late sprayings.

If used without Bordeaux mixture or lime, it is liable to burn the foliage. As there is nearly always fungus to contend with, it is recommended that the two sprays be combined, with the additional advantage of making the poison stick

This spray has proven the most successful of any used against codling moth, and is used extensively in Southern and Eastern Oregon. Paris Green being so much adulterated, its use has been pretty much discarded. Prof. M. V. Slingerland, the eminent entomologist, says in this connection.

"As to the effectiveness of these substitutes, there can be no further ques-

tion. Several of New York's leading fruit growers have used both the arsenite of lime and the arsenite of soda for one or more seasons, and all are unanimous in their praise. Some report that they are more effective than Paris Green. Their making, however, should never be left to careless hands. White arsenic is a dangerous poison. But there is no reason why intelligent and careful horticulturists should not make these cheap substitutes at home, and thus have for use a staple and effective insecticide of known composition."

Arsenite of Lead. (Disparene)

1 to 5 lbs. to the 100 gallons of water. It does not burn the foliage, neither does it wash off easily. In general use and highly recommended.

SPRAY No. 14-Tobacco Wash.

Used for aphis and tingis, as they appear on the trees.

Ingredients-Tobacco (sheep dip,, sulphured tobacco), 4 pounds; whale-oil

soap (or good strong soap), 4 pounds; water, 20 gallons.

Directions—Soak the tobacco in hot water for several hours; dissolve the soap in hot water; strain both ingredients; add together, and dilute to 20 gallons. On varieties of trees where the foliage is very tender, tests should be made before applying extensively.

Kerosene Emulsion.

Used for Wooly Aphis and Clover Mite. For Wooly Aphis—Spray with kerosene emulsion, diluted seven times. For Clover Mite-Spray with kerosene emulsion, diluted eight times.

Kerosene Emulsion-How Prepared.

Ingredients—Kerosene, 2 gallons; water, 1 gallon; hard soap, ½ pound. Directions—Make a suds of the soap and water and pour boiling hot into the kerosene; churn with a force pump or syringe, pumping out of and into a barrel or bucket through a nozzle until completely emulsified. If the mixture is sufficiently hot it will thicken in from five to ten minutes, and will be, when cold, of the consistency of butter or of soft soap. Dilute with seven to twelve parts water to one of emulsion, as occasion requires, and this will kill almost anything in the form of plant lice.

For Currant and Gooseberry Worm,

Spray the bushes just before blooming, and again after the fruit has set, with one large tablespoonful of powdered white hellebore dissolved in 21/2 gallons of water.

To Washington and Idaho Purchasers.

Purchasers from these points will remember that we are under bonds to the amount of \$1000 in each place for license to ship trees in said places, which is required by law. If any of our nursery stock is found to be infected with pests of any kind, we are held responsible by these states for inspection fees, and the infected stock is burned. While we never, to our knowledge, have sent out an infected tree, this will serve for an extra warrant that all stock from our nursery will be clear from all insect pests. And, furthermore, we are in the nursery business to stay, and we realize that our future success depends on sending out only clean, thrifty trees, true to name.

A. MILLER & SONS,

Milton, Oregon.

INDEX.

Apples 5-8	Japan Flowering Quince 26
Apricots 15	Juniper Irish 28
Almonds 15-16-23	Juniper Japan 28
Azalea Mollis 25	Logon Pores
Althea 25	Locust Black 18
Arbor Vitae	
Ampelopsis 29	
American Ivy 29	Lilacs 24
Asparagus 20	20
B'ack Walnut 16	Maples 24
Butternut	Mulberries
Blackberries 18-19	Mt. Ash 24
Box Elder 24	Moss Roses
Birch 21	
Basswood 24	Nectarines 12
Birch, cut leaved 24	Nut Trees
Barberry 25-30	Norway Spruce 28-30
Box 30	Ornamental Department 21-36
Bulbs and Tuberous rooted plants 35-36	Ornamental Department 21-36
Saiss and Tassista Flamen 35 5	Phenominal Berry
Crab Apples 8-9	Pears 9-10
Cherries 10-12	Plums
Chestnuts 16	Prunes12-13
Currants 20	Peaches
Carolina Poplar 21	Pieplant 20
Catalpa 21	Pæonias
Camperdown Elm 22-24	Privet 35 30
Calycanthus 25	Pogens
Cedar Red 28	Pecans 16
Clematis	Ouingo
Climbing Roses 35	Quince Inna Flavorina
Cypress, Lawsons 28	Quince, Japan Flowering 26
Cranberry, High Bush27	Dombousies
,	Raspberries 19-20
Dewberry 20	Rhubarb 20
Deutzia 26	Roses of Sharon 25
E FIWI	Rhododendron or Rosebay 28
English Walnut 16	Red Cedar 28
Elm 22	Roses 30-35
Evergreens 28	Ct. 1
Fruit Department 5 20	Strawberries 20
Flowering Crab 22-23	Spirea
Flowering Thorn	Snowball
	This The
T3111	Tulip Tree 24
Filberts 16	Trumpet Flower 29
Grape Vines 16-17	II. data II.
Gooseberries 19	Upright Honeysuckle 27
Gingko 23	
	Virginia Creeper 29
Hedges 30	Walnuts 16
Horse Chestnut 23	THE PARTY OF THE P
Hardy Flowering Shrubs 25-28	Weeping Trees 24
Hydrangea 26	Wisconsin Weeping Willow 24
Honeysuckle 27-30	Weigelias 27
Hardy Ornamental Vines 29-30	Wistaria 29-30
Insect Pest remedies 37-39	Yucca 28



